

We Claim:

1 1. RF base station apparatus comprising:
2 first wireless RF communication equipment; and
3 wireless optical communication equipment coupled to the first
4 wireless RF communication equipment,
5 the wireless optical communication equipment being adapted to
6 communicate signals between the first wireless RF communication
7 equipment and other equipment of the RF base station, and
8 the first wireless RF communication equipment and the other
9 equipment being non-co-located.

1 2. The apparatus of claim 1, wherein the first wireless RF
2 communication equipment is at a significant distance from the other
3 equipment of the RF base station.

1 3. The apparatus of claim 2, wherein the significant distance is
2 at least ten meters.

1 4. The apparatus of claim 1, wherein:
2 the first wireless RF communication equipment is adapted to
3 receive signals that conform to a predefined wireless communication
4 standard; and
5 the signals that the wireless optical communication equipment is
6 adapted to communicate represent information that conforms to the
7 predefined wireless communication standard.

1 5. The apparatus of claim 1, wherein the first wireless RF
2 communication equipment comprises an RF antenna.

1 6. The apparatus of claim 5, wherein the first wireless RF
2 communication equipment further comprises an RF-module.

1 7. The apparatus of claim 1, wherein the wireless optical
2 communication equipment comprises a telescope.

1 8. The apparatus of claim 1, wherein the first wireless RF
2 communication equipment comprises a processing section of the RF base
3 station.

1 9. The apparatus of claim 1, wherein the first wireless RF
2 communication equipment comprises a processing and control section of
3 the RF base station.
4

1 10. An RF base station comprising:
2 an RF antenna;
3 first wireless optical communication equipment coupled to the RF
4 communication equipment;
5 a section of equipment of the RF base station,
6 the section of equipment being at a significant distance from the RF
7 antenna;
8 second wireless optical communication equipment coupled to the
9 section of equipment of the RF base station; and
10 the first wireless optical communication equipment being adapted
11 to communicate with the second wireless optical communication
12 equipment.

1 11. The apparatus of claim 10, wherein:

2 the RF antenna is adapted to receive signals that conform to a
3 predefined wireless communication standard; and

4 the signals that the wireless optical communication equipment is
5 adapted to communicate represent information that conforms to the
6 predefined wireless communication standard.

1 12. The RF base station of claim 10, further comprising:

2 at least one other RF antenna; and

3 at least a third wireless optical communication equipment, each
4 being adapted to communicate with the second wireless optical
5 communication equipment; one wireless optical communication
6 equipment being coupled to each RF antenna.

7 13. The RF base station of claim 10, wherein the significant
8 distance is at least ten meters.

9 14. The RF base station of claim 10, wherein the section of
10 equipment of the RF base station comprises a processing section of the
11 RF base station.

1 15. The RF base station of claim 10, wherein the section of
2 equipment of the RF base station comprises a processing and control
3 section of the RF base station.

4 16. The RF base station of claim 10, wherein:

5 the first wireless optical communication equipment comprises a
6 first telescope; and

7 the second wireless optical communication equipment comprises a
8 second telescope.

1 17. A method comprising the steps of:
2 receiving an RF signal at an RF antenna of an RF base station;
3 modulating a signal representing the RF signal onto an optical
4 signal; and
5 transmitting the optical signal by wireless optical communication
6 equipment to a section of equipment of the RF base station.

1 18. The method of claim 17, further comprising the steps of:
2 receiving the optical signal on second wireless optical
3 communication equipment of the RF base station,
4 the second wireless optical communication equipment coupled to
5 the section of equipment of the RF base station; and
6 obtaining the signal representing the RF signal from the optical
7 signal.

1 19. The apparatus of claim 17, wherein:
2 signals received by the RF antenna conform to a predefined
3 wireless communication standard; and
4 the signals transmitted by the wireless optical communication
5 equipment represent information that conforms to the predefined
6 wireless communication standard.

1 20. The method of claim 17, wherein the section of equipment of
2 the RF base station comprises a processing section of the RF base
3 station.

1 21. The method of claim 17, wherein the section of equipment of
2 the RF base station comprises a processing and control section of the RF
3 base station.

1 22. The method of claim 17, further comprising the step of
2 processing the RF signal to produce a signal that can be modulated onto
3 an optical signal, wherein this step is performed prior to the modulating
4 step.

1 23. The method of claim 17, wherein the wireless optical
2 communication equipment comprises a telescope.

1 24. A method comprising the steps of:
2 obtaining a signal at a section of equipment of the RF base station;
3 modulating a signal representing the signal onto an optical signal;
4 and
5 transmitting the optical signal over wireless optical communication
6 equipment to an RF antenna of the RF base station.

1 25. The method of claim 24, further comprising the steps of:
2 receiving the optical signal on second wireless optical
3 communication equipment of the RF base station, the second wireless
4 optical communication equipment coupled to the RF antenna; and
5 obtaining the signal from the optical signal;
6 obtaining an RF signal from the signal;
7 transmitting the RF signal on the RF antenna.

1 26. The method of claim 24, wherein the section of equipment of
2 the RF base station comprises a processing section of the RF base
3 station.

1 27. The method of claim 24, wherein the section of equipment of
2 the RF base station comprises a processing and control section of the RF
3 base station.

28. The method of claim 24, wherein the wireless optical
communication equipment comprises a telescope.

29. RF base station apparatus comprising:
an RF antenna of the RF base station apparatus; and
a telescope coupled to the RF antenna, the telescope being adapted
to communicate signals between the RF antenna and other equipment of
the RF base station apparatus,
the RF antenna being at a significant distance from the other
equipment of the RF base station, and wherein
signals received by the RF antenna conform to a predefined
wireless communication standard, and
the signals communicated by the telescope represent information
that conforms to the predefined wireless communication standard.

1 30. The apparatus of claim 29, wherein the significant distance is
2 at least ten meters.